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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,774	12/21/2000	Harry J. M. Reijnders	D/A0637	1410

7590

11/26/2002

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EXAMINER

CHANG, RICK KILTAE

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 11/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/746,774

Applicant(s)

REIJNDERS, HARRY J. M.

Examiner

Rick K. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-11 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 September 2002 is: a) ☐ approved b) ☒ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 9/19/02 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of a testing fixture in a rectangular box with two lines extending therefrom touching the board and located above the board.

### ***Specification***

2. The amendment filed 9/19/02 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Such testing . . . Figure 5.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al (US 5,419,038).

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Wang discloses common substrate 14 with a plurality of circuit patterns, separating the common substrate (channel formed) after the connecting step, and titling step (Fig. 10).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3, 10-11, 14-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 5,419,038) in view of Latasiewicz (US 4,316,235).

Wang fails to disclose scoring the common substrate; holding the separated substrates in fixed position; connecting a pre-insulated wire; using a holding fixture; holding one of the separated substrates in proximity to one frame member and another one of the separated substrates held in proximity to a second frame member.

Latasiewicz discloses scoring the common substrate; holding the separated substrates in fixed position; connecting a pre-insulated wire; using a holding fixture; holding one of the separated substrates in proximity to one frame member and another one of the separated substrates held in proximity to a second frame member (Figs. 1-3) thereby forming a display monitor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wang by scoring the common substrate; holding the separated substrates in fixed position; connecting a pre-insulated wire; using a holding fixture; holding one of the separated substrates in proximity to one frame member and another one of the separated

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substrates held in proximity to a second frame member, as taught by Latasiewicz, for the purpose of forming a display monitor.

Re claim 18: Wang fails to disclose forming a groove at an angle less than 60 degrees.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to form a groove at an angle less than 60 degrees because Applicant has not disclosed that forming a groove at an angle less than 60 degrees provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with forming a groove at an angle 90 degrees because it would perform the same function of easily severing the boards from each other.

Therefore, it would have been an obvious matter of design choice to modify Wang to obtain the invention as specified in claim 18.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 5,419,038)/Latasiewicz (US 4,316,235) in view of Degani et al (US 6,370,766).

Wang/Latasiewicz fail to disclose testing prior to separating.

Degani discloses testing prior to separating (burn-in testing) thereby insuring that the printed circuit is properly functioning under stress.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wang/Latasiewicz by testing by making at least one connection that is external, as taught by Degani, for the purpose of insuring that the printed circuit is properly functioning under stress.

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8. Claims 8-9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 5,419,038)/Latasiewicz (US 4,316,235) in view of Official Notice.

Wang/Latasiewicz fails to disclose pressing or cutting by using an edged tool.

Official Notice is taken that it is well known in the art to press or cut by using an edged tool, such as a router, to cleanly separate a plurality of circuit boards from each other.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wang/Latasiewicz by pressing or cutting by using an edged tool, as taught by Official Notice, for the purpose of cleanly separating a plurality of circuit boards from each other.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 5,419,038)/Latasiewicz (US 4,316,235) as applied to claims 2-3, 10-11, 14-16, and 18 above, and further in view of Feeney (US 3,780,430).

Wang/Latasiewicz fail to disclose housing a circuit board against a sidewall.

Feeney discloses housing a circuit board against a sidewall (Fig. 1) thereby protecting the board against the environment.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wang/Latasiewicz by housing a circuit board against a sidewall, as taught by Feeney, for the purpose of protecting the board against the environment.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 5,419,038)/Latasiewicz (US 4,316,235) as applied to claims 2-3, 10-11, 14-16, and 18 above, and further in view of Degani et al (US 6,370,766).

Wang/Latasiewicz fail to disclose making at least one connection that is external.

Degani discloses making at least one connection that is external (burn-in testing) thereby insuring that the printed circuit is properly functioning under stress.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wang/Latasiewicz by testing by making at least one connection that is external, as taught by Degani, for the purpose of insuring that the printed circuit is properly functioning under stress.

#### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1-5, 7-11 and 14-20 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Interviews After Final***

12. Applicant note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing) to clarify issues for appeal requiring only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

#### ***Conclusion***

13. Applicants are duly reminded that a full and proper response to this Office Action that includes any amendment to the claims and specification of the application as originally filed requires that the applicant point out the support for any amendment made to the disclosure, including the claims. See 37 CFR 1.111 and MPEP 2163.06.

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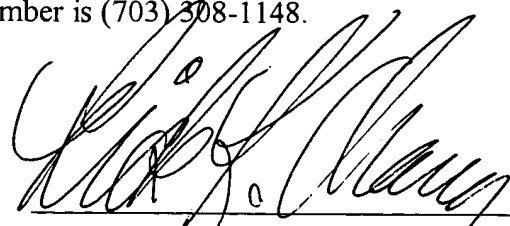
14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick K. Chang whose telephone number is (703) 308-4784. The examiner can normally be reached on 5:30 AM to 1:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (703) 308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



**RICHARD CHANG**  
**PRIMARY EXAMINER**